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UTAH GYPSY MOTH ERADICATION PROGRAM

Reserve
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1990 GYPSY MOTH REPORT

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Since the gypsy moth was first detected in July 1988, treatment and detection efforts have continued to expand as gypsy moth populations have been discovered in remote areas within the Wasatch mountains of Utah. In May 1989, 1190 acres were treated in the Mt. Olympus Cove area of Salt Lake City. As new populations were discovered during the 1989 detection and delimitation survey, the treatment area expanded in 1990 to include 13 blocks encompassing 20,064 acres in three counties (Davis, Utah and Salt Lake).

1990 Eradication Program

The only egg masses found during the fall 1989 egg mass survey were in the Mt. Olympus Cove spray block. All block boundaries were based on male moths captured during the 1989 flight period. All multiple catches and/or clusters of traps with single catches were placed within 1990 treatment block boundaries. Isolated single catches were often not included in spray block boundaries.

Aerial applications of Bacillus thuringiensis, (Bt) were applied over the 20,064 acres in 1990. Each spray block (Table 1) was treated three times at 7-10 day intervals. Aerial application was made using three rotary wing aircraft, one Hiller 12E Soloy and two Bell 206B3's. All aircraft were equipped with four electronic rotary atomizer Beecomist nozzles calibrated to deliver 64 oz. per acre. Foray 48B at 24 BIU's was applied neat for all applications. Application costs, which includes the cost of the Bt and aerial application was \$9.23 per acre. Total project costs are approximately 1.8 million which, based on 60,072 acres treated, represents \$29.96 per acre.

Mass trapping was conducted within residential sections of each spray block. Approximately 2200 traps were placed within these residential sites. Preliminary estimates of the cost of trap placement and retrieval for mass trapping is \$5.06 per trap.

Detection trapping was conducted by APHIS personnel, using the new detection trapping guidelines developed by APHIS, 169 detection traps were placed throughout the state. No moths were captured in the detection survey.

Approximately 6,000 traps were placed in the delimitation survey within and surrounding the 1990 spray blocks. Of these, 2,000 traps were placed on Forest Service land in mountainous terrain. This represents an increase of 1,500 traps compared to the 1989 delimitation survey in this type of terrain. Although some traps still remain to be collected, 527 moths have been caught in the delimitation traps. Of these, 464 moths were captured outside of the treatment blocks. Most of the increase is due to additional traps placed in remote terrain. Within the treatment blocks only 63 moths were captured compared to 2,239 positive catches in 1989.

Once all the remaining traps are collected, program staff will delineate block boundaries for 1991. As of this date, we estimate treatment acreage will encompass 19-24,000 acres.

Utah Gypsy Moth Data (Total Moths Caught)

<u>Spray Block Area</u>	<u>1989</u>	<u>1990</u>
SL 1 - Millcreek	490	29 207
SL 2 - Mt. Aire	6	0
SL 3 - Lambs Canyon	9	0
SL 4 - Hatch Canyon	10	0
SL 5 - Little Mtn.	5	0
SL 6 - Tolcat	9	3
SL 7 - Lower Big Ctn.	7	0
SL 8 - Upper Big Ctn.	6	0
SL 9 - Top of World	66	12
SL 10 - Little Ctn.	20	3
SL 11 - Bells Canyon	7	0
DA 1 - Davis County	703	15
UT 1 - Utah County	901	9

90VS91.XLS

90 VS. 91 TREATMENT AREAS

SPRAY BLOCK	ACRES 1990	ACRES 1991	PERCENT RETREATED
DA1	7,362	1,521	20.66
SL1	3,543	1,847	52.13
SL2	72	0	0.00
SL3	181	0	0.00
SL4	1,286	0	0.00
SL5	51	0	0.00
SL6	287	120	41.81
SL7	119	0	0.00
SL8	257	0	0.00
SL9	626	454	72.52
SL10	555	107	19.28
SL11	218	0	0.00
UT1	5,489	2,287	41.67
TOTAL	20,046	6,336	31.61

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